



# 40 Years Young

1974 will be remembered for many things: the resignation of Richard Nixon, ABBA's victory at the Eurovision song contest, or even perhaps the invention of the Rubik's cube. It also witnessed the launch of an upstart in the publishing world whose aim was to provide a focal point and shared purpose among the rapidly expanding community of cell and molecular biologists. We'll spend this year commemorating the 40th birthday of this newcomer and the science that has appeared in its pages since. Given the passage of time, one might expect the articles in the first issue of *Cell*, published four decades ago this month, to seem as distant as old news stories from the era. But flip (or more likely scroll) through its pages and you'll experience something original, something familiar, and something enduring. We each have memories of a *Cell* paper that sent us immediately to the bench to order supplies for a new experiment or to tell a colleague "you've gotta read this!"—studies whose insights were so revelatory and beautiful as to inspire admiration and wonder.

During this anniversary year, we'll be looking back at exceptional events in *Cell*'s history, taking stock of where we are now and sharing our excitement about what's ahead for biology and for publishing. As part of the celebration, we will be presenting Reviews, Essays, and other pieces specially commissioned for the occasion on topics of particularly broad and intense interest to our readers. These features will be marked in the pages of the journal with a 40th anniversary stamp, which graces the cover of this issue and the top of this page. The first of these, a Review by Evan Rosen and Bruce Spiegelman titled "What We Talk About When We Talk About Fat," appears on page 20. In a few months, our annual special reviews issue will join this 40th anniversary collection en masse, surveying the current landscape of biology through a prism of editorially curated themes predicated on the overarching question: What do we know *now* that we could not even have conceived of 40 years ago?

Starting with the next issue, we will revisit some of the major landmarks at *Cell* through a series of timelines that cover each of *Cell*'s four decades, including scientific breakthroughs and publishing milestones. The online versions of the timelines will have links to the original articles, many of which will be annotated, with the benefit of hindsight, by footnotes from current thought leaders in their respective fields. Join us in taking this look back, not only to see how far we've come but to gain a clearer vantage on where we are. Revisiting these classic studies raises questions that are still debated today and provides an immersive experience of research on the move as only the best scientific page-turners can.

Arriving at this milestone, we also recognize that many of our readers and contributors were not yet born when *Cell*

was founded. In recognition of this new generation of scientists, our upcoming "40 Under 40" web feature will profile 40 exceptional scientists born after *Cell* was founded. The profiles will entwine the personal with the professional, providing us with a snapshot of these scientific movers and shakers who've come of age during a booming period for biology. But, as fun and stimulating as these stories are, they also offer a peek into the challenges facing young researchers. The sustainability of an academic career, the precariousness of the support system, and the challenges of attaining a work-life balance are recurrent themes that, together with their lighthearted anecdotes and ebullient passion for their work, form a candid portrait that we hope all generations of scientists will find inspiring.

From the outset, *Cell* has sought to promote interdisciplinary thinking by publishing the most innovative and thought-provoking findings, which in the early days featured much from the explosive areas of cellular and molecular biology. Insights from these early papers have now transitioned into the foundational knowledge that fills our textbooks. As biology has evolved and forged bridges with other areas, *Cell* has continued to foster scientific cross-pollination, welcoming biophysics, computation, genomics, systems biology, human genetics, and disease therapeutics to name a few, with new formats, new ways to present results, and new relationships within the communities. We relish opportunities to join and organize exciting conferences, meet with researchers in their labs, and work closely with our Editorial Board to ensure that *Cell* responds to the expanding nature of research and keeps at, or ideally just a bit ahead of, the cutting edge of biomedical science.

The first issue of *Cell* changed the face of scientific publishing. Article titles were declarative, figures were high quality and easy to see, Helvetica coursed across the pages, and the physical journal was a pleasure to hold and flip through. We've continued on this trajectory, believing that an accessible and appealing presentation is inseparable from stimulating scientific content. It's a time of experimentation and change in the world of publishing, and in that spirit, we have moved to incorporating more video and graphical formats for authors to convey the essential take-home message of a paper, and we continue to make all of our articles freely available to all readers 12 months after publication. We hope that you'll join us this year as we discuss and debate the future of how we share, evaluate, and communicate discovery.

Benjamin Lewin founded *Cell* as the journal of "exciting biology," and exciting our readers will always be our core mission. For this reason, we wear as a badge of honor the responsibility that comes as this mission's companion—to excite is to challenge and often to knowingly spark debate. The community of scientists that breathes life

into our founding principles teaches us daily not to shy away from contention because it is only at the edge of uncertainty that the greatest discoveries are made. In looking to our next decade and beyond, we resolutely affirm that research primarily advances over the long term from ideas and concepts that recast or challenge current ways of thinking, matched in equal measure with vigorous scholarly debate and experimental innovation and rigor.

In our roles as editors, we have the privilege and responsibility of engaging with researchers to test the limits and explore the ideas burgeoning in labs all over the world. These interactions energize us and each issue that we produce.

Though at 40, *Cell* may have shed the mantle of upstart, its founding vitality drives us still. We remain a young journal, in spirit and in attitude always.

**Emilie Marcus**

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